## JC17 Rec'd PCT/PTO 0 9 JUN 2005

## **AMENDMENTS TO THE CLAIMS:**

This listing of claims will replace all prior versions, and listings, of claims in the application:

## **Listing of Claims:**

- 1. (currently amended): A method [[for]] of calibrating the phase of a microwave source, in which:
- -[[a]] <u>closing a</u> calibration circuit is <u>closed</u>, the calibration circuit comprising an injection channel connected to a measurement channel via <u>microwave</u> the source to be calibrated;
- -[[a]] <u>injecting</u> test signal is <u>injected</u> through the source to be calibrated, the test signal being injected on the injection channel,
- -measuring the phase  $\phi_m$  of the signal having passed through the source to be calibrated is measured, the phase of the signal being measured on the measurement channel, characterized in that:
- -measuring the amplitude A<sub>m</sub> of the signal having passed through the source to be calibrated is measured, the amplitude of the signal being measured on the measurement channel;
  - opening the calibration circuit is opened at the source to be calibrated;
  - injecting the test signal is injected on the injection channel;
- -measuring the phase  $\phi_f$  and the amplitude  $A_f$  of the signal present on the measurement channel is measured;
- determining a corrected phase value  $\phi_c$  is determined, this corrected phase being the phase of a complex number  $U_c$ , calculated from two complex numbers  $U_m$  and  $U_f$ , where:

$$U_m = A_m \cdot \exp(i \cdot \varphi_m)$$

$$U_f = A_f \cdot \exp(i \cdot \varphi_f)$$

2. (currently amended): The method as claimed in claim 1, in which the complex number U<sub>c</sub> is given by the following equation:

$$U_c = U_m - \alpha \cdot U_f$$

where  $\alpha$  is a complex coefficient correcting for the fluctuations over time in  $\phi_f$  and  $A_f$  between the measurements of  $\phi_m$  and  $A_m$ , on the one hand, and of  $\phi_f$  and  $A_f$ , on the other, this coefficient being equal to 1 in the absence of the correction.

- 3. (currently amended): The method as claimed in any one of the preceding claim[[s]]  $\underline{1}$ , in which a value of the corrected amplitude  $A_c$  is determined, this corrected amplitude being the amplitude of the complex number  $U_c$ .
- 4. (currently amended): The method as claimed in claim 2, in which the complex coefficient  $\alpha$  is given by the following equation:

$$\alpha = \frac{U_r(t_1)}{U_r(t_0)}$$

where  $U_r$  represents a measurement of the phase and of the amplitude of a reference signal, the measurement  $U_r(t_1)$  being concomitant with the measurement of  $U_m$ , and the measurement  $U_r(t_0)$  being concomitant with the measurement of  $U_f$ .

5. (new): The method as claimed in claim 2, in which a value of the corrected amplitude  $A_c$  is determined, this corrected amplitude being the amplitude of the complex number  $U_c$ .